

AGENDA ITEM #9

July 9, 2004

To: Delta Protection Commission

From: Margit Aramburu, Executive Director

Subject: Jones Tracts Levee Break: Update and Possible Recommendations for Action
(For Public Hearing and Possible Commission Action)

BACKGROUND:

In July 2001 staff prepared and presented the attached update memo on Delta levees. Since that time, Commission staff:

- Worked with Department of Fish and Game and Central Valley Regional Water Quality Control Board staff and a Technical Advisory Panel to complete the Delta Dredge Reuse Strategy (June 2002).
- Continued to participate in the monthly meetings of the Delta Levees and Habitat Advisory Committee to coordinate the ongoing Delta Levees Subventions program, administered by the Department of Water Resources.
- Participated in the monthly meetings of the Bay Delta Public Advisory Committee Delta Levees Subcommittee, administered by CALFED Bay Delta Authority staff and co-chaired by Marci Coglianese and Tom Zuckerman.
- Has not hosted a meeting of Delta Reclamation Districts as suggested at the July 2001 Commission meeting (see attached minutes).

CURRENT ISSUES:

- Funding for the Delta Levees program has continued to be limited; the program has been one of the underfunded programs in the CALFED program. Funds are currently allocated from bond funds. CALFED ROD goals for upgrading levees to PL84-99 standard and preparation of a Delta Risk Management Strategy have not yet been met.
- Permit streamlining/coordination has not been pursued by the CALFED program, due to budget shortfalls.
- AB 360, the legislation authorizing the Delta Levees Subventions Program, will sunset July 1, 2006. New legislation will need to be introduced in the next legislative session. AB 360 recommends funding the Levee Subventions and Special Projects Programs at \$12 million per year.
- The recommendations of the Delta Dredge Reuse Strategy have not been implemented.

- The Regional Water Quality Control Board staff has not completed environmental document needed to process the proposed general order for small dredging projects due to budget shortfalls and staffing shortages.
- Jones Tract levee break in June 2004 pointed out shortfalls in the current Emergency

RECOMMENDATIONS FOR DISCUSSION AND POSSIBLE ADOPTION:

To assist in prevention, mitigate potential damages, and address the system-wide response to another event like the recent levee break on Jones Tract, consider recommending the following to the CALFED Bay Delta Authority's Delta Levees Program:

- Reclamation Districts should ensure that entities with infrastructure on an island pay an appropriate assessment to help maintain each island's levees.
Comment: This could increase the local funds available to match State maintenance dollars.
- Create a dedicated source of annual maintenance funding from the State, to allow for longer term planning for annual levee maintenance.
Comment: This would allow for better planning and implementation of ongoing levee maintenance.
- Create an emergency fund at the State, to allow for immediate funding of flood fight, repair and restoration in the event of a levee break.
Comment: This would allow immediate deployment of resources needed to minimize damages and costs associated with a levee break without the delay experienced at Jones Tract.
- Propose a clear plan to treat any Delta levee break as a “State emergency” allowing for immediate deployment of the resources of the State.
Comment: This would allow immediate deployment of resources needed to minimize damages and costs associated with a levee break and remove some of the after-the-fact wrangling.
- Negotiate pre-agreements with each Reclamation District and the Department of Water Resources to allow access to an island to allow DWR to repair and restore the levees and drainage facilities.
Comment: This would shorten the time needed for State response.
- Negotiate pre-agreements between the Department of Water Resources and appropriate contractors for carrying out the needed work and providing the necessary materials.
Comment: This would speed up the flood fight and levee repair process, and minimize damage and costs.

- Develop and implement a crop insurance program for Delta farmers.
Comment: This would offset losses to individuals and the economic "ripple effect" of crop devastation such as that suffered on Jones Tract.
- Levee program implementing agencies (Department of Water Resources, Department of Fish and Game, and the Corps of Engineers) should prepare a plan to fund and implement the program to bring Delta levees to the PL84-99 standard for agricultural lands.
Comment: This would increase Delta levee stability.

July 2001

Subject: Update on Delta Levees
(For Public Hearing and Possible Commission Action)

PROPOSED ACTION/NEXT STEPS:

Staff will update the Commission on changes in levee programs in the Delta Primary Zone since the background report on Levees was presented in 1994. The Commission will receive public comment and discuss the staff report. The Commission may direct the staff in further action including: further studies and research, actions to carry out strategic plan, research on funding, etc., such as:

- Reconvene the Levee Committee to make further recommendations to the full Commission;
- Work with CALFED, reclamation districts and other agencies to help develop an overall strategy for bringing all the Primary Zone levees to the PL 84-99 standard;
- Continue to support efforts by State and federal agencies to clarify and shorten timelines for project review and permit issuance for levee maintenance projects;
- Investigate ways to incorporate other Commission goals--wildlife habitat and recreation--into CALFED's levee program; and/or
- Other tasks.

BACKGROUND:

In 1993-1994, the Commission reviewed a background report on Levees. That background report addressed: history of levee construction in the Delta; modern Delta levees; maintenance of levees--vegetation; levee maintenance and upgrades--physical; levee maintenance and upgrades (funding); regulatory process for maintenance, upgrades and emergency repair; impacts associated with levee failures; and levee failure mechanisms. Note: the entire background report is available on the Commission's website (www.delta.ca.gov) or is available in hard copy from the Commission's office.

The Commission appointed a Levee Subcommittee that was convened in December 1994 (Torlakson, McCarty, Curry, Mello, Potter, Broddrick). The Levee Subcommittee was charged with reviewing emergency levee repair, levee standards, reauthorization and funding of the levee subvention program, and permit streamlining and making recommendations to the full Commission re: language for the Plan.

Based on information in the background report and the recommendations of the Levee Subcommittee, the Commission adopted Findings, Policies, and Recommendations in the Land Use and Resource Management Plan for the Primary Zone of the Delta. The adopted policies state:

1. Delta levees shall be maintained to protect human life, to provide flood protection, to protect private and public property, to protect historic structures and communities, to protect riparian and upland habitat, to promote interstate and intrastate commerce, to protect water quality in the State and federal water projects, and to protect recreational use of the Delta area. Delta levee maintenance and rehabilitation shall be given priority over other uses of the levee areas. To the extent levee integrity is not jeopardized, other uses, including support of vegetation for wildlife habitat, shall be allowed.
2. If levee guidelines are needed, local governments shall adhere to guidelines for federal and local levee maintenance and construction at a minimum as stipulated in the Flood Hazard Mitigation Plan guidelines, and set longer term goals of meeting PL-99 Standards. If vegetation standards are needed, local governments shall adopt the adopted vegetation guidelines that promote native grasses and limited vegetation on specific areas of the levee.
3. Through flood ordinances based on FEMA model ordinances, local government shall carefully and prudently carry out their responsibilities to regulate new construction within flood hazard areas to protect public health, safety, and welfare. Increased flood protection shall not result in densities beyond those allowed under zoning and General Plan designations in place on January 1, 1992, for lands in the Primary Zone.
4. Existing programs for emergency levee repair should be strengthened and better coordinated between local, State and federal governments and shall include: interagency agreements and coordination; definition of an emergency; designation of emergency funds; emergency contracting procedures; emergency permitting procedures; and other necessary elements.
5. Local governments shall use their authority to control levee encroachments that are detrimental to levee maintenance.

COMMISSION ACTIONS SINCE PLAN ADOPTION:

The Levee Subcommittee continued to meet through February 1997. The Subcommittee focused on regulatory issues, funding and legislation to continue the Levee Subvention Program, and the need for data and cost estimates to bring the Delta levees to the PL 84-99 standard (see Exhibit A, B and C).

In 1996, AB 360 (Hannigan) was passed, continuing the Levee Subventions Program. Various federal permits and letters of clarification were issued which supported levee maintenance activities. CALFED staff was directed to undertake substantial planning regarding Delta levees and the need to bring them to the PL 84-99 standard. The CALFED Levees Background report includes estimates of the cost of bringing the Delta levees to the PL 84-99 standard.

In 1996, the Commission considered undertaking a project of determining the amount of work and the estimated cost of the work needed to bring the Delta levees to the Corps' PL-99 standard, the standard adopted as part of the Commission's Plan. At that time, the Corps stated that two tracts met PL-99: Holland Tract and Byron Tract, both in Contra Costa County. Holland Tract is in the Primary Zone and is included in the project boundary of the Delta Wetlands water storage project and would be a "mitigation" island if the project is approved. Holland Tract would be managed as a mosaic of agriculture, permanent and seasonal wetland habitats, and managed for hunting and other private recreational uses. Byron Tract is in the Secondary Zone. Instead, the Commission decided to track CALFED's study of the work and costs needed to bring the Delta levees to the PL-99 standard. Four Reclamation Districts had prepared studies of the volume of material and cost to bring levees to PL-99 standard: Lower Jones, Orwood, Palm, and Lower Roberts (all in Primary Zone). In 1998, the Commission received draft information developed by CALFED staff on the costs of bringing non-project levees to the PL 84-99 standard (see Exhibit E).

In early 1997, devastating floods hit the State of California and the focus for Delta levee work became part of the statewide Flood Emergency Action Team (FEAT) program which issued a report in May 1997. The Commission prepared letters on the draft FEAT report and supported actions outlined in the report. The statewide flood control study recommended in the FEAT report is now being carried out by the Corps and DWR--the Comprehensive Study.

The Commission is one of three agencies participating in the CALFED-funded, Directed Action to develop a Delta Dredging and Reuse Strategy to select goals and an overall approach that can be used later to develop a long-term Delta Dredge Material Management Plan. The Commission is coordinating the Technical Advisory Panel (TAP) which includes one DPC Commissioner (Commissioner Wilson); research database preparation, and plan preparation is being carried out by Department of Fish and Game and the Central Valley Regional Water Quality Control Board. The project was funded by CALFED in 1998. The TAP was appointed in 1999. The project is to include: compilation of existing data re: makeup of Delta sediments into a database; identification of contaminants of concern and data gaps; and development of sediment reuse criteria described in a Delta Dredge Reuse Strategy document that is also to include ideas for streamlining dredging projects. The document will included recommendations on guidelines for various uses of dredged sediments and a plan for implementing further studies.

OTHER CHANGES IN LEVEE PROGRAMS SINCE 1995:

Vegetation on Levees (Reclamation Board): One major change in levee maintenance--vegetation--was the 1996 adoption of new regulations about vegetation on levees by the Reclamation Board (Title 23, Section 131)(see Exhibit D). The new regulations replaced DWR's Bulletin 192 (Plan for Improvement of Delta Levees) and draft vegetation management guidelines. The new regulations require the landowner to remove all

vegetation, does not allow trees on levees of non-project levees (***non-project levees are levees built and maintained by Reclamation Districts; project levees were designed and built to Corps standards as part of the State's flood control system and are maintained by the State or by Reclamation Districts***), and includes a list of appropriate trees and groundcovers. The Reclamation Board inspects Delta levees regularly and levees seeking funds from the Levee Subventions program are inspected by staff of DWR and DFG as part of the funding process.

Hazard Mitigation Plan (HMP) standards adopted after the 1982-83 flood. To remain eligible for federal assistance, reclamation district were required to bring their levees to the HMP standards:

- One foot of freeboard about the 100 year flood frequency elevations;
- Minimum crown width of 16 feet;
- Waterside slope of 1.5 to 1 with revetment where erosion is a problem;
- Landside slope at least 2 to 1 with flatter slopes in the lower portion of the levee where soil stability and seepage have been problems; and
- All -weather access roads.

Levee Standards (CALFED): Currently, all levees protecting agricultural land in Primary Zone must meet the HMP standards set after the 1986 floods. The CALFED program, as memorialized in the programmatic environmental document, proposes all Delta levees be brought to the Corps PL 84-99 agricultural standard (see Commission Levee Policy #2) as shown on the attached exhibit, which would widen the base of the levees to enhance stability and not necessarily raise the elevation of the levees. CALFED consultants have prepared cost and material estimates to bring all the Delta levees to the PL 84-99 standard.

Dredged Material for Levee Repair (Central Valley Regional Water Quality Control Board): Material dredged from Delta channels is the traditional material used to construct and maintain Delta levees. New regulatory constraints have lessened the time of the year when dredging may occur, and restricted source areas (vegetated areas, critical shallow water habitat, etc.).

The Long Term Management Strategy (LTMS), a Bay Area planning process to develop locations for disposal of material dredged in the Bay, has proposed that material from the Bay Area be used for levee strengthening in the Delta. The use of this material in the Delta has raised concerns re: water quality and salinity impacts.

The Central Valley Regional Water Quality Control Board (CVRWQCB) has recommended additional study of this issue. A separate study is underway regarding reuse of material dredged in the Delta for Delta levee maintenance and habitat creation. The CVRWQCB and Department of Fish and Game are leads on this CALFED-funded study.

Authorization of the Delta Levee Maintenance Program/Subventions Program

(Legislature): SB 84, enacted in 1988, authorized the current levee subventions program and set the maximum annual funding for the program at \$12 million per year. This funding also includes funding for "Special Projects--originally levee work on the critical "eight western islands" identified by DWR as critical to protecting water quality for the central Delta (Bethel, Bradford, Holland, Hotchkiss, Jersey, Sherman, Twitchell, and Webb). Traditionally the total funding has been split half-and-half between the subventions program and the special projects program.

AB 1065, enacted in 1991, provided supplemental guidance for the subventions program regarding habitat protection and mitigation. Funds from the subventions program are used to mitigate environmental impacts associated with levee maintenance.

With the enactment of AB 360 in 1996, the subventions program was modified and expanded the subventions program to include some levees within the Suisun Marsh (from Van Sickle Island west to Montezuma Slough); allowed subventions funding for **project levees** within the Primary Zone of the Delta; and extended the subventions funding until July 1, 2006. AB 360 broadened the allowable uses of the "special projects" component of the program. AB 360 also provides for "net habitat improvement" in the Delta, an environmental standard above and beyond the "no net loss of habitat" required in SB 34. Currently, the Reclamation Districts address no net loss of habitat using subventions funds, and the overall program is responsible for the "net habitat improvement" using special projects funds.

Funding of Delta Levee Maintenance (Legislature): The levee subvention program continues to be budgeted on a yearly basis by the Legislature. After passage of Prop 204, the Legislature deleted the program from the General Fund and allocated bond funds to support the program. The levee funds of Prop 204 are largely depleted, and funds for the program will be allocated from the General Fund for FY 01-02.

Fiscal Year	Subventions Funds	Levee Miles Maintained	# of RDs	Special Project Funds	Total Funds Spent
FY 96-97:	\$3.7 million	556 miles	56	\$3.7 million	\$7.4 million
FY 97-98:	\$7.1 million	615 miles	62	\$5.9 million	\$14.2 million
FY 98-99:	\$5.2 million	612 miles	58	\$5.9 million	\$11.1 million
FY 99-00:	\$8.3 million	617 miles	62	\$6.5 million	\$12.9 million
FY 00-01	\$8.3 million	696 miles	62	\$11 million	\$17.7 million

Source: Department of Water Resources, Central District, July 2001

Permit Streamlining: The Commission and the Levee Subcommittee asked staff to research regulatory issues as they pertain to levee maintenance in the Delta. Speeding up the review process and clarifying regulatory processes and requirements have long been identified as key elements in controlling costs of levee maintenance while ensuring environmental protection. Unfortunately, regulatory streamlining efforts underway

several years ago are not in place, and some of the permits which did provide for streamlining have expired and not been reissued.

In 1993, the Delta smelt was listed as a threatened species under State and federal law. In December of 1994, the Fish and Wildlife Service designated all water-covered areas in the Delta as critical habitat for Delta smelt. Activities that could affect habitat of the Delta smelt include levee maintenance and bank protection activities, such as riprapping, removal of vegetation, and placement of dredged materials on levees or banks. The Service developed "work windows", periods when that work could take place in the Delta with minimal impact on Delta smelt. For most of the Delta, work can occur August 1 through November 30 and is limited to areas in excess of three meters (10 feet) in depth. The work windows apply to all nationwide and general permits that apply in the Delta.

In 1996, State Lands Commission authorized staff to enter into one-time Memorandums of Agreement that would allow Reclamation Districts to conduct dredging to obtain materials for levee maintenance. The MOAs are for activities authorized in Corps GP 14; GP 14 has since expired and not be reissued.

The CALFED Record of Decision required preparation of a Memorandum of Understanding to be signed by the CALFED agencies regarding permit coordination. That MOU has been approved. In addition, CALFED committed to preparing the following "tools": permit handbook; permit tracking database; unified application format; non-binding dispute resolution process; annual reports and meetings to track progress; and permit coordinators. The permit handbook should be released shortly.

The Corps' General Permit 14, which authorized dredging of up to 100,000 cubic yards per permittee per year for levee maintenance, expired on January 1, 2001. The Corps' website indicates GP 14 is "under revision". Currently, each applicant seeking to dredge for material for levee maintenance must submit an individual permit application.

The CVRWQCB is currently processing two General Orders for small dredging projects (less than 100,000 cubic yards) with placement on land (in a disposal site, or for levee maintenance). CVRWQCB staff circulated the Notice of Preparation of environmental documents in June 2001. Earlier attempts (circa 1996) to issue similar general orders were abandoned by CVRWQCB staff. Currently, each project must test material to be dredged and used for levee repair.

CALFED LEVEE PROGRAM

ROD Commitments: The CALFED Record of Decision (ROD) (August 2000) states the goals of the CALFED levee program is "to provide long-term protection for multiple Delta resources by maintaining and improving the integrity of the extensive Delta levees system. CALFED proposes investing a total of approximately \$450 million in Stage 1 (see Exhibit F). The ROD proposes substantial efforts during Stage 1 to rebuild certain levees in ways that encourage habitat for aquatic and terrestrial species. DWR and the

Corps are charged with leading the CALFED agencies in implementing the levee program (see Exhibit G). The program includes four elements:

- **Base Level Protection:** Base level funding to help Reclamation Districts reconstruct all Delta levees to a base level of protection (the PL 84-99 standard). Currently 520 out of 1,100 miles do not meet this standard; during Stage One, 200 additional miles of levee will be brought up to a base level of protection.
- **Special Improvement Projects:** Enhance stability on levees that have particular importance in the system, including life and personal property, water quality, protecting agricultural production, and protecting ecosystems.
- **Levee Subsidence Control Plan:** CALFED will develop "best management practices" to control and reverse subsidence and work with local districts and landowners to implement cost-effective measures.
- **Levee Emergency Response Plan:** Develop a plan to enhance the ability of local, State and federal agencies to rapidly respond to levee emergencies.

Stage 1 actions include:

- Refine Delta Emergency Management Plan by 2000 [task has been completed by DWR].
- Develop Delta Risk Management Strategy by 2001 [contract has been signed and advisory committee created].
- Develop Best Management Practices for reuse of dredged materials by 2001.
- Institute program for using Bay and Delta dredge material to repair Delta levees and restore Delta habitat, targeting two million cubic yards of dredge material in Stage 1.

Oversight of the CALFED Levee Program: The CALFED Bay Delta Oversight Committee established a technical group to work with staff on the preparation of the levees component of the CALFED program. That group continued to meet after the ROD was issued to discuss issues associated with implementation of the CALFED levee program. CALFED has agreed to hold those meetings with the Delta levees and Habitat Advisory Committee, a committee set up by the Secretary for Resources in 1993 to serve as a forum for resolving issues associated with the ongoing levee subventions/levee maintenance program. Those meetings are public meetings, and generally include landowners, reclamation district representatives, interested parties, and State and federal agencies.